

To: jschu@usgs.gov[jschu@usgs.gov]
From: Gravatt, Dan
Sent: Thur 7/11/2013 6:59:14 PM
Subject: FW: West Lake Landfill Figure for public meeting
Figure1 April2013 Sampling.pdf

John, as we discussed on the phone this afternoon, here is the figure we had Tt prepare for us for our June public meeting, so you can find out how easily your folks could duplicate Tt's efforts.

Thanks,

Daniel R. Gravatt, PG

US EPA Region 7 SUPR/MOKS

11201 Renner Boulevard, Lenexa, KS 66219

Phone (913)-551-7324

Principles and integrity are expensive, but they are among the very few things worth having.

From: Wiederholt, Nick [mailto:Nick.Wiederholt@tetrattech.com]
Sent: Thursday, June 20, 2013 3:03 PM
To: Gravatt, Dan
Cc: Colin.Willits@tetrattech.com
Subject: RE: West Lake Landfill Figure Ready for Review

Dan,

After sending the West Lake Landfill through our final review process, I made just a few minor edits to the attached figure:

- Adjusted placement of a few of the text labels slightly
- Indented the text for readability in the "Source" section below the north arrow.

- Changed the wording of the "Note" slightly for clarification to read:

Monitoring well results represent combined total

Radium 226+228 concentrations. Only results

for monitoring wells that exceed 5.0 pCi/L are shown.

It previously read:

Monitoring well results represent combined total

Radium 226+228 results that exceed 5 pCi/L.

Please let us know if everything still looks acceptable after these changes.

Thank you,

Nick

From: Gravatt, Dan [<mailto:Gravatt.Dan@epa.gov>]
Sent: Thursday, June 20, 2013 7:18 AM
To: Wiederholt, Nick
Cc: Willits, Colin
Subject: RE: West Lake Landfill Figure Ready for Review

Nick, the figure looks good. Yes, please print all five copies on foamcore board. Yes, keep the "Figure 1" in the title block. I will be out of the office on Monday June 24, so if you plan to deliver then, please call DeAndre Singletary, Matt Jefferson, Jaci Ferguson, or Debbie Kring to come to the guard desk to retrieve the figures.

Daniel R. Gravatt, PG

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Principles and integrity are expensive, but they are among the very few things worth having.

From: Wiederholt, Nick [<mailto:Nick.Wiederholt@tetrattech.com>]
Sent: Wednesday, June 19, 2013 1:04 PM
To: Gravatt, Dan
Cc: Colin.Willits@tetrattech.com
Subject: West Lake Landfill Figure Ready for Review

Dan,

Please find attached a pre-production version for your review of the West Lake Landfill figure depicting the April 2013 sampling results.

Please let us know if you notice any revisions that should be made on this figure before we send to the printing company. You need all 5 copies printed on "foam-board," correct?

Also just one quick question....do you want "Figure 1" still displayed in the title block?

Thank you,

Nick

From: Gravatt, Dan [<mailto:Gravatt.Dan@epa.gov>]
Sent: Tuesday, June 18, 2013 2:41 PM
To: Wiederholt, Nick
Cc: Willits, Colin
Subject: FW: Radium summary table

Nick, here are the files with the radium results we need plotted on the figure for our public meeting. As we did last time, we want the "Combined Radium 226 + 228" value plotted on the figure for each well that exceeds the MCL of 5 pCi/L. As we did last time, we want to plot only the total result (Sample IDs ending in "TOT") on the figure. Change the figure title to read "Total Radium In Groundwater, April 2013 Sampling Event". Change the Source reference for this data from the 2012 groundwater monitoring report to "Radium Summary Table, April 2013 Groundwater Sampling Event, West Lake Landfill Operable Unit 1, June 18, 2013". Otherwise, the figure should look just like the ones we had you make for our January public meeting.

Call with any questions. If there's time, I would like to see a pre-production version of the figure by e-mail.

Thanks,

Daniel R. Gravatt, PG

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Principles and integrity are expensive, but they are among the very few things worth having.

From: Paul Rosasco [<mailto:paulrosasco@emsidenver.com>]
Sent: Tuesday, June 18, 2013 12:29 PM
To: Gravatt, Dan
Subject: Radium summary table

Dan,

Attached is a table summarizing the April 2013 sample results for the radium isotopes. I am

providing you with both a pdf and the Excel file so that you can load the values directly from the Excel file into your GIS files. I have checked the data on this table against the hard copy lab reports so I believe it is good to share with you but until we complete the report and the associated full QC review I still consider this table to be a draft.

As I indicated on the phone, the only other radionuclide that exceeded a water quality standard was the total uranium result from well S-53. This sample reportedly contained 45.3 pCi/L U-234, 11.37 pCi/L U-235, and 53.49 pCi/L of U-238 (Note: all three results were qualified as estimated concentrations) for a total Uranium content of 110.16 pCi/L. Using the procedure in EPA's soil screening guidance these activity levels equate to a mass concentration of 164.6 ug/L. The dissolved result from this well was much lower (U-234 of 5.9 pCi/L; U-235 of 0.4 pCi/L and U-238 of 4.74 pCi/L, again all estimate concentrations) and the calculated mass concentration (14.32 ug/L) was less than the MCL. I am still doing initial QC review on the uranium and thorium tables so I am not sending them out yet. I must note that according to the field notes, due to the limited amount of water in well S-53 this well was sampled without purging the well. The sample was reported to be gray and the turbidity was reported to be 524.2 NTU which was one of the most turbid samples obtained during the April sampling (other highly turbid samples included D-85 and I-68) indicating that the sample contained a large fraction of suspended sediment. Please note that this well was determined to be dry during the July/August 2012 sampling event and therefore was not sampled. In addition, this well was not included in the OU-1 RI groundwater sampling program. Therefore we do not have any prior results from this well for comparison. This well is located near the old leachate lagoon, west of the southern portion of the Inactive Sanitary Landfill and the South Quarry Landfill, far away from Areas 1 and 2.

Let me know if you need anything else.